BRUHATH BANGALORE MAHANAGARA PALIKE

Name of the Agency	:	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	:	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Estimate Cost	:	Rs.

QUALITY CONTROL REPORTS TO

Asst. Executive Engineer,
Vidyaranyapura Sub Division,
BBMP, Bangalore.

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QUALITY CONTROL REPORTS FOR

WET MIX MACADAM(WMM)

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Job No.: CTCE/BBMP/W.No.09/BG/WMM/Gradation/2014-15

13.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B. Girish,**
#227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.

Name of Work : Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015

Date of Testing : 13.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7895**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	150	150	1.9	98.1	95-100
22.4	2550	2700	34.2	65.8	60-80
11.2	1495	4195	53.1	46.9	40-60
4.75	1290	5485	69.5	30.5	25-40
2.36	935	6420	81.3	18.7	15-30
0.600	685	7105	90.0	10.0	8-22
0.075	640	7745	98.1	1.9	0-8

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Note:

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Job No.: CTCE/BBMP/W.No.09/GB/WMM/Gradation/2014-15

13.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B. Girish,**
#227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.

Name of Work : Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015

Date of Testing : 13.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8695**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	185	185	2.1	97.9	95-100
22.4	2615	2800	32.2	67.8	60-80
11.2	1510	4310	49.6	50.4	40-60
4.75	1250	5560	63.9	36.1	25-40
2.36	985	6545	75.3	24.7	15-30
0.600	900	7445	85.6	14.4	8-22
0.075	900	8345	96.0	4.0	0-8

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13.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

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Agency : **Mr. B. Girish,**
#227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.

Name of Work : Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015

Date of Testing : 13.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): 8400

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	215	215	2.6	97.4	95-100
22.4	2505	2720	32.4	67.6	60-80
11.2	1480	4200	50.0	50.0	40-60
4.75	1310	5510	65.6	34.4	25-40
2.36	990	6500	77.4	22.6	15-30
0.600	850	7350	87.5	12.5	8-22
0.075	800	8150	97.0	3.0	0-8

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Job No.: CTCE/BBMP/W.No.09/BG/WMM/AIV/2014-15 13.02.2015

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	13.02.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	386	387	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	86	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	301	
4	Aggregate Impact value = percent fines	22.02	22.22	
	100* (W_2/W_1)%			22.12

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.09/BG/WMM/AIV/2014-15 13.02.2015

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	13.02.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	380	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	78	79	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	301	
4	Aggregate Impact value = percent fines	20.58	20.79	
	100* (W_2/W_1)%			20.68

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.09/BG/WMM/S-T/2014-15 13.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	13.02.2015

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Result : Flakiness Index = **12.15%**

Elongation Index = **13.90%**

Result : Combined Flakiness & Elongation index **26.05%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.09/BG/WMM/S-T/2014-15 13.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	13.02.2015

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **11.25%**

Elongation Index = **13.20%**

Result : Combined Flakiness & Elongation index **24.45%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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QUALITY CONTROL REPORTS FOR

SEMI DENSE BITUMINOUS CONCRETE

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T-2377

Job No.: CTCE/BBMP/W.No.09/BG/CSR-02/765k/QB(SDBC)/2014-15 16.02.2015

TEST REPORT ON DETERMINATION OF BITUMEN CHARACTERISTICS

*CUSTOMER	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
*NAME OF THE WORK	:	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	:	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
*SAMPLE ID	:	Bitumen
DATE OF SAMPLING	:	14.02.2015
DATE OF TESTING	:	16.02.2015

The results of the tests conducted on the bitumen sample.

Sl. No	Description	Test Method as per IS	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	IS :1203 -1978 (RA-2009)	68	60 to 70
2	Softening point, ^{0}C	IS :1205 -1978 (RA-2009)	47	Min. 45
3	Ductility at 27^{0}C, cm	IS :1208 -1978 (RA-2009)	100 >	Min. 50
4	Flash Point, ^{0}C	IS :1209 -1978 (RA-2009)	302	Min. 220

*Information is furnished by the Customer/Representative.

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VISHWANATH .C
Quality Manager

AE-9

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/AIV/2014-15 16.02.2015

Aggregate Impact Value

IS: 2386 Part IV

Customer	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Semi Dense Bituminous Concrete
Date of Testing	16.02.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	389	390	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	88	89	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	301	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	22.62	22.82	22.72

Comments:

→ Maximum allowable Aggregate Impact value for Semi Dense Bituminous Concrete is 27%

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/AIV/2014-15 16.02.2015

Aggregate Impact Value

IS: 2386 Part IV

Customer	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Semi Dense Bituminous Concrete
Date of Testing	16.02.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	378	380	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	78	79	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	301	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	20.63	20.79	20.71

Comments:

→ Maximum allowable Aggregate Impact value for Semi Dense Bituminous Concrete is 27%

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Shape_T/2014-15 : 16.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Customer	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	: **Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of Work	: Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	: EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Technical Reference	: IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	: Semi Dense Bituminous Concrete
Date of Testing	: 16.02.2015

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **12.35%**

Elongation Index = **13.25%**

Result : Combined Flakiness & Elongation index **25.60%**

Comments:

Maximum allowable Flakiness & Elongation Index for Semi Dense Bituminous Concrete is 30%

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Shape_T/2014-15 : 16.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Customer	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
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Reference	: EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Technical Reference	: IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	: Semi Dense Bituminous Concrete
Date of Testing	: 16.02.2015

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Result : Flakiness Index = **11.89%**

Elongation Index = **13.21%**

Result : Combined Flakiness & Elongation index **25.10%**

Comments:

Maximum allowable Flakiness & Elongation Index for Semi Dense Bituminous Concrete is 30%

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Stripping/2014-15 18.02.2015

Stripping Value of Road Aggregates (Static Immersion Test)

IS: 6241

Customer	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Type of Mix	Semi Dense Bituminous Concrete
Date of Testing	18.02.2015

Type of binder : 60/70
Percentage of binder used : 5.0% by wt.
Total weight of aggregate : 200 g
Total weight of binder : 10.0 g
Temperature of water-bath : 40° C

Observation Number	Stripping, Percentage	Average, Percentage	Average Retained Coating, %
1	3.1	3.20	96.80
2	3.2		
3	3.3		

Comments:

→ Minimum allowable Aggregate retained coating for Semi Dense Bituminous Concrete is 95%

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Sp_Wa/2014-15 18.02.2015

Specific Gravity And Water Absorption Test

IS: 2386 Part III

Customer	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Type of Mix	Semi Dense Bituminous Concrete
Source / Location	Hotmix Plant, Bangalore
Date of Testing	18.02.2015

Sl. No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
1	Weight of aggregate suspended in water with the basket	W_1 g	2002	2005	2001	
2	Weight of basket suspended in water	W_2 g	755	755	755	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_s$ g	1247	1250	1246	
4	Weight of saturated surface dry aggregate in air	W_3 g	2015	2016	2018	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_S)$ g	768	766	772	
6	Weight of oven dried aggregate	W_4 g	2005	1998	1999	
7	Specific Gravity	$W_4/(W_3-W_S)$	2.611	2.608	2.589	2.603
8	Apparent Specific gravity	$W_4/(W_4-W_S)$	2.645	2.671	2.655	2.657
9	Water Absorption	$((W_3-W_4)*100)/W_4$	0.50%	0.90%	0.95%	0.78%

Comments:

→ Maximum allowable Aggregate Water absorption value for Semi Dense Bituminous Concrete is 2.0%

Note:

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Bit/2014-15 18.02.2015

BITUMEN CONTENT DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX AS per IRC:SP:-1984

CUSTOMER	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
NAME OF THE WORK	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
SAMPLE I/D	Basavasamithi road, Ward No.09.
DATE OF TESTING	18.02.2015

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	475	474
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	25	26.00
7. Bitumen content in %	5.00	5.20
8. Average	**5.10**	

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Bit/2014-15 18.02.2015

BITUMEN CONTENT GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

As per IS2386 and IRC:SP:11-1984

CUSTOMER	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
NAME OF THE WORK	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
SAMPLE I/D	Basavasamithi road, Ward No.09.
DATE OF TESTING	18.02.2015

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
13.2	0	0	0	100	100
9.5	25.32	5.33	5.33	94.67	90-100
4.75	255.3	53.75	59.08	40.92	35-51
2.36	52.32	11.01	70.09	29.91	24-39
1.18	35.21	7.41	77.51	22.49	15-30
0.3	34.56	7.28	84.78	15.22	9-19
0.075	39.65	8.35	93.13	6.87	3-8

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
13.2	0	0	0	100	100
9.5	39.65	8.36	8.36	91.64	90-100
4.75	258.9	54.62	62.99	37.01	35-51
2.36	33.25	7.01	70.00	30.00	24-39
1.18	35.21	7.43	77.43	22.57	15-30
0.3	34.65	7.31	84.74	15.26	9-19
0.075	49.36	10.41	95.15	4.85	3-8

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/AGG/2014-15 18.02.2015

Aggregate Gradation Test

IS : 2386 Part I

Customer	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Sample I / D	Hot Mix Plant, Bangalore
Type of Mix	Semi Dense Bituminous Concrete (SDBC)
Date of Testing	18.02.2015

Total Weight of Sample: **5150** gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Remarks
13.2	0	0.0	0	100	100	Gradation satisfies Grade-II MORTH specification
9.5	285	5.5	5.53	94.47	90-100	
4.75	2585	50.2	55.73	44.27	35-51	
2.36	675	13.1	68.83	31.17	24-39	
1.18	635	12.3	81.17	18.83	15-30	
0.3	365	7.1	88.25	11.75	9-19	
0.075	310	6.0	94.27	5.73	3-8	

Total Weight of Sample: **5250** gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Remarks
13.2	0	0.0	0	100	100	Gradation satisfies Grade-II MORTH specification
9.5	315	6.0	6.00	94.00	90-100	
4.75	2890	55.0	61.05	38.95	35-51	
2.36	655	12.5	73.52	26.48	24-39	
1.18	460	8.8	82.29	17.71	15-30	
0.3	330	6.3	88.57	11.43	9-19	
0.075	325	6.2	94.76	5.24	3-8	

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Job No.: CTCE/BBMP/W.No.09/BG/SDBC/Stability/2014-15 18.02.2015

TEST REPORT ON STABILITY OF MIX

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B. Girish,** #227, 32 'A' Cross, 7th Block, Jayanagar, Bangalore - 560 082.
Name of the Work	:	Improvements to Road and Drains in Basavasamithi Road in Ward No.09 of Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	EE/BTP/BBMP/E-PMT/296/2014-15 Dated: 06.02.2015
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Semi Dense Bituminous Concrete
Date of Testing	:	18.02.2015

The results of the tests conducted on the bituminous concrete mix sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-19)
1	Marshal Stability, Kn	8.80	8.95	8.2 Kn (min)
2	Marshal flow, mm	3.10	3.25	2 – 4
3	Percent air voids in Mineral Aggregate	4.20	3.25	3 – 5
4	Voids in Compacted Mix	13.90	14.10	13 – 15
5	Percent Voids filled with Bitumen	66.70	68.30	65 - 78
6	Density, g/cc	2.27	2.28	--

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